

Serial No10/063,754

RD-29,414-1

Amendments to the specification:

Please amend the paragraphs [0018] and [0019] of the Brief Description of Drawings, found on page 6 of the specification, as follows:

C1  
FIGURE 5 is a plot of the thickness profile of an a-SiC:H coating obtained with an array of ETP sources in which the octamethylcyclotetrasiloxane (D4) reactant gas was provided to an array of ETP sources by the common reactant gas injector ring of the present invention; and

FIGURE 6 is a plot comparing the thickness profiles of amorphous hydrogenated silicon oxycarbide ( $a\text{-SiO}_x\text{C}_y\text{:H}$ ) coatings deposited from a mixture of D4 and oxygen ( $\text{O}_2$ ) on polycarbonate substrates using a single common reactant injector and multiple common reactant injectors in accordance with the present invention; and

FIGURE 7 is a schematic representation showing a common reactant gas injector having a different linear densities of orifices in regions A and B.

Please amend paragraph [0038], found on page 12 of the specification, as follows:

C2  
In some instances, pressure may not be constant throughout common reactant gas injector 220. This condition may produce unequal flow of reactant gases into the plurality of plasmas that are generated by the plurality of plasma sources 212. A smaller amount of reactant gas, for example, may be directed into a plasma generated by a plasma source (labeled 'A' in Figure 3) that is located more distant from the reactant gas source 226 than into a plasma source ('B' in Figure 3) located closer to reactant gas source 226. Under these conditions, the flow rate of reactant gases to each of the plurality of plasmas may be equalized by modifying at least one of orifice diameters, linear densities of orifices, and the conductance of the plurality of orifices in common reactant gas injector 220. For example, the flow rate of reactant gases into the plasmas generated by plasma sources A and B may be equalized by providing common reactant gas injector 220 in the vicinity of plasma source A with a larger number of orifices than the number

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of orifices that are located in the vicinity of plasma source B. Alternatively, as shown in Figure 7, the flow rate may be equalized by providing common reactant gas injector 220 with a greater linear density of orifices (A in Figure 7) in the vicinity of plasma source A than ~~that~~ the linear density of orifices (B in Figure 7) in the vicinity of plasma source B. The flow rate of reactant gases may be equalized by providing common reactant gas injector 220 with orifices in the vicinity of plasma source A having diameters that are greater than the those of the orifices located in the vicinity of plasma source B. Finally, providing common reactant gas injector 220 with orifices having a lower conductance in the vicinity of plasma source A may be used to equalize the flow rates to plasmas generated by plasma sources A and B.

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